



SICRIT® Plug & Play Soft Ionization

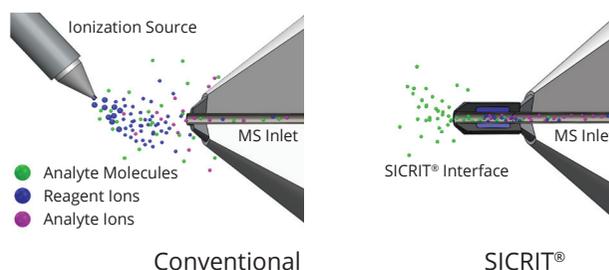
Simple. Smart. Sensitive.



SICRIT® Technology

SICRIT® (Soft Ionization by Chemical Reaction in Transfer) is the first real flow-through soft ionization technique in mass spectrometry.

In conventional methods the analyte gets ionized before being introduced into the MS. Therefore, losses by charge repulsion and neutralization during transfer into the MS cannot be avoided.



The patented SICRIT® ion source extends the inlet of your MS and ionizes all molecules drawn in by your MS by means of a specially shaped cold plasma. The plasma is ignited within a capillary, thus transmission and, consequently, sensitivity are greatly improved.

SICRIT® decouples the ionization from the sample delivery step and converts your MS into a sensitive and selective electronic nose, giving you unlimited analytical freedom.

Advantages

- Easy implementation and operation on all types of LC-MS systems
- Combinable with LC, GC and SPME
- No sample preparation and ionization tuning required
- Sub-ppt sensitivity
- More analytes accessible

Applications

SICRIT® is a revolutionary flow-through soft plasma ionization technique, which decouples the ionization from sample delivery.

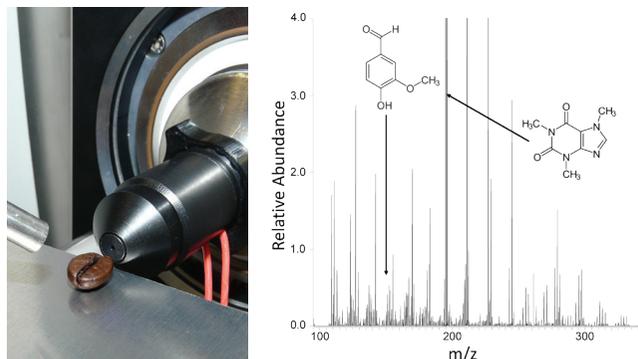
This gives you the opportunity to use your MS instrument as ultra-sensitive electronic nose or to combine it with any chromatographic or sample pretreatment system available in a plug & play fashion.

The patented SICRIT® technology takes mass spectrometry to new frontiers and enables new applications and workflows in numerous fields beyond the lab:

- Quality Control
- Medical Diagnosis
- Industry 4.0
- Emission Monitoring
- Food Safety
- Aroma Sensing
- Security and Forensics
- And many more...



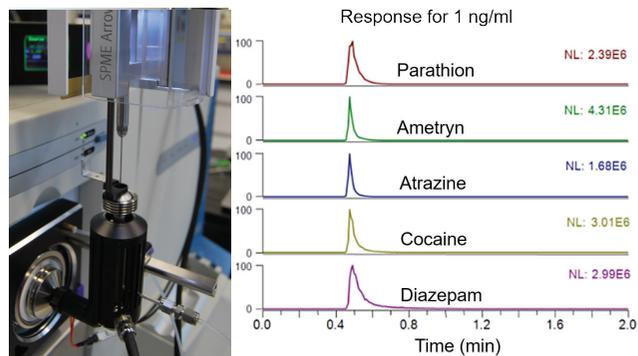
SICRIT® Online-MS Monitoring



Online-screening of coffee bean aroma compounds

- Direct online-screening of VOCs
- Dedicated for online-reaction control or fast contaminant screening in any matrix
- Figure shows identification of >300 aroma compounds in coffee beans in <1 s

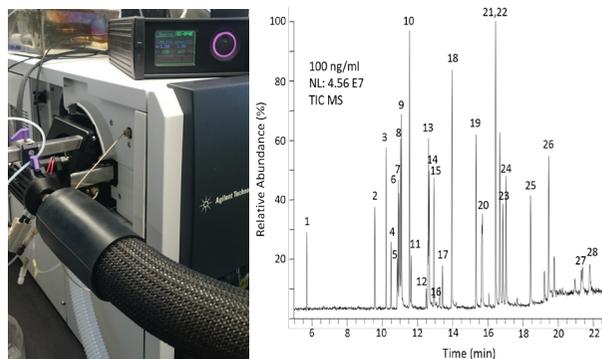
SICRIT® Direct SPME-MS Screening



SPME-MS drug screening, Anal. Chem. 2016, 88, 7252.

- Direct coupling of SPME with MS
- No LC/GC separation for fast workflows
- Thermal desorption of analytes
- Example shows sensitive detection of illicit drugs with LODs as low as 0.3 pg/ml

SICRIT® Soft Ionization GC-MS Combination



Pesticide GC-MS analysis, Analyst 2017, 142,1909.

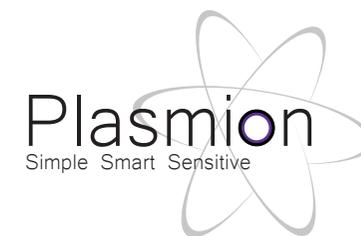
- Flexible GC-Soft-Ionization-MS couplings with mainly MH^+ species observed
- For target and non-target analysis of pesticides, drugs, PAHs, and many more
- GC-MS run of 28 pesticides in water with LODs as low as 30 pg/ml is illustrated

SICRIT® Product Portfolio



SICRIT® GC/SPME Module, Ion Source and Control Unit

- SICRIT SC-20X Ionization Set including SC-20 Control Unit and SICRIT Ion Source
- Interfaces for Thermo, Agilent and Sciex LC-MS systems available (other manufacturers on request)
- GC/SPME Module for GC connection and for manual or PAL-automated SPME fiber / arrow desorption



Sales & Distribution

SICRIT® products are manufactured and sold by Plasmion GmbH. For customers from DACH and Benelux, SICRIT® products are distributed by Axel Semrau®. For inquiries and information, please get in contact with the sales team of our reseller.



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References and Collaborations



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